

Monday, October 13



INTERNATIONAL CONFERENCE • 2008



Welcome to La Grande Motte

After being operational for 18 months, ENDURE is delighted to present its first results to the world's scientific community at this meeting. We also expect to learn from the experiences and achievements you are bringing to us from other institutions and countries. I wish you all a very fruitful and enjoyable conference.

Pierre Ricci,
ENDURE
coordinator

Today's schedule:

- **08:40-09:20**
Opening session
- **09:20-12:30**
Issues and challenges for crop protection
- **14:00-16:00**
Stakeholder perspectives
- **16:30-18:20**
Impact and governance

Interview: lessons learned in California

ENDURE web editor Andrew Lewer speaks to Cliff Ohmart (below), Director of Research and IPM (integrated pest management) at the Lodi Winegrape Commission, California, USA, ahead of this morning's plenary session focusing on *Issues and challenges*

Andrew Lewer: What message will you be sharing with visitors?
Cliff Ohmart: There are several important impediments to growers in California increasing their adoption of IPM programmes, and recognising and addressing them is critical for increasing the use of IPM in the state. There is still a significant gap in many crops between the results of IPM research and what growers implement on their farms. I feel IPM is best viewed as a continuum with one end representing no IPM and the other an ecologically balanced farm requiring no grower intervention. A grower strives to move along this continuum increasing their IPM

implementation over time.

AL: What can we in Europe learn from the USA about IPM implementation?

CO: Increasing the level of grower adoption of IPM on Californian farms is a slow and complex process because of the impediments referred to above and those that I will be discussing in my presentation.

AL: How useful is it to share experiences?

CO: Extremely useful. No one person or continent has all the answers. It is only through exchanging information, learning what



works and does not work in different countries that we can all move along the IPM continuum.

Cliff Ohmart's presentation, *What are the impediments to grower adoption of IPM? Why do they exist and what can be done to get around them?* can be heard during this morning's plenary session in the Grand Auditorium.

Message from the European Commission

Recent food and energy price crises, and the related food security issues, are new elements in the challenging world context where climate change and globalisation are strongly influencing the agro-food sector, write **Timothy Hall** and **Jean-François Maljean**, Acting Director and Project Officer respectively of DG Research at the European Commission. These problems are complex but it is widely recognised that research has a major role to play in their alleviation.

Such a context clearly opens a new window for plant health and protection research, pre and post-harvest, particularly for crops which are close to the absolute yield ceiling.

However, with growing awareness of environmental considerations and a food market increasingly led by consumer demand, market and policy orientations are rapidly changing in the sense of a more cautious approach towards pesticides.

These trends clearly indicate that plant health and plant protection need to be addressed with an integrated approach where containment measures, sustainable use of plant protection products, development of more resistant plant varieties, appropriate farming practices and management of biological control agents, in combination with other techniques and new technologies

need to be implemented in a coordinated manner at not only the farm level but also at the wider local or regional levels.

ENDURE is a major research project supported by the EC under the FP6 programme to answer such challenges and is now approaching its mid-term. The main findings and achievements reached so far will be presented at this conference and promisingly indicate that ENDURE has the capacity to reach its high ambitions by the end of its mandate, and most importantly, to remain a structured focal point in the longer term.

Read the full article in your conference brochure.



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**Adviser guides
for major crops**

Providing practical advice and readily available solutions to existing problems in some of Europe's major crops has been the focus of ENDURE's *From Science to Field Guides*. Guides available so far include four on late blight in potatoes, plus advice on integrated weed management for maize and using cultivar resistance to reduce fungicide inputs in wheat.

From Science to Field Guides

Using Cultivar Resistance to Reduce Fungicide Input in Wheat



 

Innovative technologies for IPM implementation

To implement IPM at a European level, farmers need innovative technologies to accompany new crop protection strategies. ENDURE is providing solutions by developing a modelling platform and integrating decision support systems (DSS), by looking for applicable molecular and serological techniques for detection of plant pathogens and examining existing technologies and research prototypes for precision spray application.

A pan-European workshop on DSS brought together 49 experts to review the availability, attributes and implementation of computer programs to guide optimal crop protection strategies and was the starting point of a group working on this topic (see poster 53). One of the objectives is to identify the

'best parts' of DSSs. The first results will be presented tomorrow in the session starting at 16:00 (**oral presentations 24 and 25**).

Precision agriculture also requires state-of-the-art farm machinery, and technology to link operators with the hardware. ENDURE has been working on developing 'task controller' software to act as this interface, leading to discussions on open source software for the task controller and for use in precision agriculture. This group will also propose suitable standards for geo-referenced data for the task controller.

Identifying diseases, pests and weeds at a much earlier stage makes it possible to limit the amount of chemicals applied and also allows growers to use biological

controls or other measures. ENDURE's team examining innovative technologies focuses on the optimal combination and integration of innovative diagnostic tools and precision spraying to reduce pesticide use. A review describing techniques for detecting plant pathogens in air, soil, starting material and in the field has been produced, plus another describing existing technologies and research prototypes for precision spraying. Following this, a review describing how diagnostic tools can facilitate the use of precision spraying techniques (**poster 51**) has been written. An innovative crop protection system will now be designed.

For more details see key contacts (above left).

Interview: case studies, results and the future

ENDURE catches up with Per Kudsk, leader of the case study groups

ENDURE: What was the rationale behind the case studies and what has been achieved?
PK: It has brought together researchers who have not previously worked together. The overall goals were to compile information on best practices in different countries, to assess the extent it is possible to extrapolate experiences from one region of Europe to another and to point out needs for future research. A lot of valuable information was collected and been made available to a broader audience through the guides (see story left).

ENDURE: What happens to the case studies now finishing?

PK: Hopefully the networks that now exist will continue to collaborate, either within ENDURE or outside ENDURE. The participants of the wheat, integrated weed management and pomefruit case studies are involved in the system case studies started this year. Furthermore the participants of the wheat case study are developing a EUROWHEAT platform inspired by the EUROBLIGHT platform. Hopefully the participants of the tomato case study could also find a way to continue their collaboration within the new system case study on Mediterranean protected agriculture.

ENDURE: What are the new case studies?

PK: The new ongoing case studies are on maize, field vegetables and banana and next year we will start a case study on grapevine. Maize and grapevine are major crops and the reliance on pesticides is very high. Field vegetables are faced with a decreasing number of pesticides available for farmers which means prompt action is needed. Banana was chosen because it is imported in large quantities and is also grown in the EU. The main focus is to ensure information on protection strategies is made available to INCO countries.